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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
REKSTAD, ERICK J	
ART UNIT	**PAPER NUMBER**
2613	3

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/854,463	HANNUKSELA ET AL.	
	Examiner	Art Unit	
	Erick Rekstad	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 May 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This is a first action for application no. 09\854,463 filed on March 15, 2001 in which claims 1-14 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,410,553 to Choon in view of US Patent 6,351,493 to Reed et al.

[claims 1, 3, 6, 7]

Choon teaches the use of the frame type to determine which type of error concealment method to use as required by claim 7 (Col 2 Lines 34-43, Col 5 Lines 5-25, Fig. 5). Choon further teaches the uses of the error concealing method for block-based video coding systems such as MPEG. Choon further teaches the use of the error concealing method used in a decoder as required by claim 6 (Col 4 Lines 41-63, Col 7-Col 8, Fig. 4). Choon does not teach how the frame type is decided. Reed teaches a scene change detecting method, which codes a frame as an I-frame when the difference between two frames is above a threshold in order to prevent the propagation of quantization artifacts (Col 3 Lines 11-35, Col 4 Lines 24-30, Col 5 Lines 44-45, Fig.

2). Reed further teaches the use of the scene change detection method in video coding schemes such as MPEG-1, MPEG-2 and H.263 (Col 3 Lines 50-53). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the encoder of Reed with the decoder of Choon as both are used for MPEG coding scheme. Reed further teaches the including of the frame type in the header as required by claim 3 (Col 3 Lines 63-65).

[claims 2 and 13]

Reed further teaches the indicator (frame type) is updated when the measure of similarity does not meet the predetermined criterion of similarity (number of non-intra coded macroblocks) (Col 5 Lines 39-46). Reed further teaches the including of the frame type in the header as required by claim 13 (Col 3 Lines 63-65).

[claims 5 and 10]

Reed teaches the method and encoder for encoding a video signal representing a sequence of pictures, the method comprising comparing a first picture with a second picture, calculating a measure of the similarity between the first and the second pictures, comparing the measure of similarity with a predetermined criterion of similarity and outputting an indicator (frame type) in response to the measure of similarity wherein, when the measure of similarity does not meet the predetermined criterion, the indicator is updated and when the measure of similarity meets the predetermined criterion, the indicator is unchanged (Col 4 Lines 5-18, Col 5 Lines 39-51, Fig. 1 and 2). The decoder of Choon uses the frame type to determine what type of error concealment to perform as shown above for claim 1 (Col 4 Lines 41-63, Col 7-8, Fig. 4).

[claim 8]

Reed further teaches that the frame is encoded as an I-frame when a scene change occurs. Otherwise, the frame is inter-coded (Col 5 Lines 53-59). The scene change is based on the similarity between the current frame and the previous frame (Col 5 Lines 44-45). As shown in Fig. 5 of Choon, frames that are intra coded (I-frame) are spatially interpolated. Non-Intra coded frames are temporally interpolated (Col 5 Lines 7-44, Fig. 5).

[claim 9]

As shown in Figure 1, Reed teaches a video encoder comprising an input for receiving a video signal representing a sequence of pictures (120), a calculator to calculate a measure of the similarity between a first and a second picture (104), and a comparator to compare the measure of similarity with a predetermined criterion of similarity and to output an indicator indicating the concealment method to be used by a subsequent decoder (110), the comparator being arranged to output an indicator (frame type) indicating that a non-temporally predictive concealment method should be used when the measure of similarity does not meet the predetermined criterion, and, when the measure of similarity meets the predetermined criterion, to output an indicator (frame type) indicating that a temporally predictive concealment method should be used by a subsequent decoder (Col 2 Line 40-Col 3 Line 56, Col 4 Line 31-Col 5 Line 45). The frame type is used by the decoder of Choon to determine the use of spatial or temporal error concealment as shown above for claims 1 and 8 (Fig. 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the

encoder of Reed with the decoder of Choon as both are used for MPEG coding scheme.

[claim 11]

As shown above for claim 1, Choon teaches the method of decoding a video and using an indicator to determine the type of concealment to be used. Choon further teaches a video decoder as shown in Figure 4, comprising an input for receiving an encoded video signal representing a sequence of pictures (60), a controller (80) for identifying within the video signal for each picture to be decoded an indicator indicating the type of concealment method to be used in the decoding process (90), and decoding the encoded video signal using a concealment method as indicated by the indicator (Col 4 Lines 41-63, Col 7-8, Fig. 4).

Claim 12 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Choon and Reed as applied to claims 9, 10 and 11 above, and further in view of US Patent 6,515,695 to Sato et al.

[claim 12]

As shown above for claims 9 and 11, Choon and Reed teach the encoder and decoder required by claim 12. Choon teaches the decoder for MPEG encoded video (Col 1 Lines 6-10). Reed teaches the video encoding process for MPEG-4 (Col 4 Lines 38-44). Choon and Reed do not teach the encoder and decoder in a portable radio communications device. Sato teaches a portable videophone system containing a video codec for the display and recording of MPEG-4 video (Abstract, Col 8 Lines 49-61, Col 9 Lines 21-26). It would have been obvious to one of ordinary skill in the art at

the time of the invention to use the encoder and decoder of Choon and Reed as the codec for the system of Sato as the encoder and decoder are MPEG based.

[claim 14]

As shown above for claims 10 and 11, Choon and Reed teach the encoder and decoder required by claim 14. Choon teaches the decoder for MPEG encoded video (Col 1 Lines 6-10). Reed teaches the video encoding process for MPEG-4 (Col 4 Lines 38-44). Choon and Reed do not teach the encoder and decoder in a portable radio communications device. Sato teaches a portable videophone system containing a video codec for the display and recording of MPEG-4 video (Abstract, Col 8 Lines 49-61, Col 9 Lines 21-26). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the encoder and decoder of Choon and Reed as the codec for the system of Sato as the encoder and decoder are MPEG based.

Allowable Subject Matter

Claim 4 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,188,792 to Chujoh et al.

US Patent 6,714,724 to Cook.

US Patent 6,661,927 to Sourez et al.

US Patent 6,636,565 to Kim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erick Rekstad whose telephone number is 703-305-5543. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on 703-305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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